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### **REMARKS**

Claims 1-26 remain present and are rejected in this application. Applicants respectfully request reconsideration and allowance of the present application.

In the latest (non-final) Office Action, the Examiner rejected claims 1-5, 8-14, 17-20, and 22-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,668,172 to Yoshimura (hereinafter "Yoshimura"), in view of U.S. Patent No. 6,657,980 to Holtzman et al. (hereinafter "Holtzman"). Applicants respectfully traverse these rejections for the reasons presented below.

Before discussing the claim rejections and the applied references, it is important to appreciate Applicants' claimed invention and the advantages realized therefrom. The invention provides for a system and method for improving the signal processing capability of a mobile receiver located in a vehicle in the presence of multi-path distortion. As recited in independent claims 1, 10, 19, and 23, the speed of the vehicle is determined. Next, signal information on a selected signal received by the mobile receiver is collected. The collected signal information is provided by a signal quality circuit, and provides an indication of the quality of the received signal. Then, at least one time constant associated with the processing of the collected signal information is modified responsive to the determined speed.

Yoshimura is primarily directed to a reception apparatus and processing method to improve reception characteristics in a reception apparatus by compensating for deterioration of transmission quality independently of a traveling speed of a terminal. When a transmission signal sent via a radio transmission path is received, the reception apparatus of Yoshimura performs reception processing best suited to a radio transmission path whose state changes according to the traveling speed of the terminal itself, and controls reception processing according to the traveling speed.

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Applicants note that Holtzman is primarily directed to a method and apparatus for scheduling packet data transmissions in a wireless communication system. In Holtzman, a base station receives a data rate request (DRR) indicator from a mobile station, determines a fairness parameter for the mobile station, calculates a projected throughput value for the mobile station as a function of the rate request indicator, calculates a priority function for the mobile station that is a function of the data rate request, and schedules transmissions to the mobile station according to the priority function.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or references when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination, and the reasonable expectation of success, must both be found in the prior art, not in Applicants' disclosure. MPEP 2143; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

With respect to the rejection of independent claims 1, 10, 19, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura, in view of Holtzman, Applicants respectfully submit that a motivation to combine the Yoshimura and Holtzman references appears to be lacking, and, in addition, that the combination of Yoshimura with Holtzman falls to teach each and every claim limitation of independent claims 1, 10, 19, and 23.

Because Holtzman appears to be primarily directed to scheduling packet data transmissions in a base station or transmitter, whereas Yoshimura appears to be primarily directed to improving reception processing of a signal received in a terminal, a motivation to combine the teachings of Yoshimura with Holtzman would appear to be lacking. More specifically, although Yoshimura appears to be directed to a method and

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apparatus for improving reception characteristics by changing how a received signal is processed in a receiver, Yoshimura does not mention or otherwise suggest the need for a transmitter to alter the characteristics of a transmitted signal, such as by scheduling transmissions to mobile stations according to priority functions, as is taught by Holtzman. Therefore, there does not appear to be a motivation to combine the teachings of Yoshimura with Holtzman.

Because there appears to be no suggestion or motivation to combine the references, this required element of a *prima facie* case of obviousness is lacking, and the Examiner has failed to establish a *prima facie* case of obviousness. For at least this reason, the Examiner's rejection of independent claims 1, 10, 19, and 23 is improper and should be withdrawn, which action is respectfully solicited.

Moreover, the combined references of Yoshimura and Holtzman do not appear to teach or suggest all the claim limitations of independent claims 1, 10, 19, and 23, as is required to establish a *prima facie* case of obviousness. Applicants first note that the Examiner acknowledges that Yoshimura "fails to teach wherein the collected signal information is provided by a signal quality circuit." The Examiner then urges that Holtzman teaches "wherein the collected signal information is provided by a signal quality circuit (see col. 4, lines 1-33)." Column 4, lines 1-33 of Holtzman discuss a user determining a quality of a transmission channel, and using that information to determine a data rate to request from a base station. Holtzman further discusses that one measure of the quality of the transmission channel may be a C/I (carrier-to-interference) measure. Holtzman also mentions that a user may determine the data rate request based on measuring C/I and on errors in transmitted data received by the user. However, Holtzman is silent as to how C/I and/or errors are determined, and more specifically, also fails to teach or disclose "wherein the collected signal information is provided by a signal quality circuit."

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With respect to independent claims 10, 19, and 23, the Examiner further urges that Yoshimura teaches "a signal quality circuit coupled to the tuner module (see Fig. 4, Pilot control circuit 52 (signal control circuit) (col. 6, lines 35-55)." Applicants respectfully disagree with the Examiner's interpretation of pilot control circuit 52 of Yoshimura. As seen in Fig. 4, and discussed in column 6, lines 35-38 of Yoshimura, pilot control circuit 52 does not appear to be a signal quality circuit providing collected signal information indicative of the quality of a received signal. As disclosed in Yoshimura, speed detection apparatus 5 provides terminal traveling information (i.e., the speed at which the terminal is traveling) to pilot control circuit 52, which uses that information to adjust time constants of pilot reception filters. Pilot control circuit 52 is not disclosed as being a signal quality circuit.

Because Yoshimura, in combination with Holtzman, fails to teach or suggest all the claim limitations in claims 1, 10, 19, and 23, the Examiner has failed to establish a *prima facie* case of obviousness by combining Yoshimura with Holtzman. For the above reasons, the rejection of independent claims 1, 10, 19, and 23 as being unpatentable over Yoshimura, in view of Holtzman, is improper and should be withdrawn, which action is respectfully solicited.

In addition, because dependent claims 2-9, 11-18, 20-22, and 24-26 depend from allowable independent claims 1, 10, 19, and 23, respectively, these dependent claims are allowable for at least this reason.

The Examiner also rejected claims 6, 15, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura, in view of Holtzman, and further in view of Ugari. First, claims 6, 15, and 21 should be allowable for the reasons set forth above with respect to the rejection of claims 1, 10, and 19, respectively. In addition, the Examiner acknowledges that Yoshimura and Holtzman fail to teach "wherein the collective signal information provides an indication of an ultrasonic noise (USN) level associated with the received signal." The Examiner urges that Ugari teaches that "the collected signal information provides an indication of an ultrasonic noise (USN) level associated with the

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received signal (see fig. 3, col. 11, lines 24-54 and col. 15, lines 24-30).” While Ugari does refer to low frequency amplifiers 19 and 21 (column 11, line 39), and reducing the treble region of a low frequency signal when multi-path distortion appears as noise (column 15, lines 28-30), Ugari does not appear to mention an ultrasonic noise (USN) level associated with the received signal.

Because Yoshimura, in view of Holtzman and Ugari, does not teach or suggest all the claim limitations of dependent claims 6, 15, and 21, the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) for these dependent claims. For this reason, the rejection of dependent claims 6, 15, and 21 should be withdrawn, which action is respectfully solicited.

The Examiner also rejected claims 7 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura, in view of Holtzman, further in view of Ugari, and further in view of Campbell. Because dependent claims 7 and 16 depend from independent claim 10, dependent claims 7 and 16 should be allowable for the reasons set forth above with respect to the rejection of claim 10. In addition, because dependent claims 7 and 16 depend from allowable dependent claims 6 and 15, respectively, dependent claims 7 and 16 are allowable for at least this additional reason.

By way of the foregoing discussion, Applicants have demonstrated that claims 1-26 would not have been rendered obvious in view Yoshimura, in combination with Holtzman, Ugari, and Campbell. Accordingly, the rejections of claims 1-26 under 35 U.S.C. § 103(a) should be withdrawn, which action is respectfully solicited.

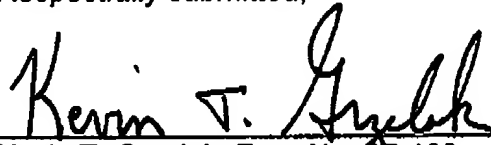
Applicants respectfully submit that this reply is fully responsive to the above-referenced Office Action.

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### CONCLUSION

In view of the above remarks, it is submitted that claims 1-26 define patentable subject matter and are in condition for allowance, which action is respectfully solicited. If the Examiner has any questions or comments with respect to this reply, the Examiner is invited to contact the undersigned at 616/949-9610.

Respectfully submitted,



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